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10/699,940	11/03/2003	Thomas Scott III	MSI-1731US	4357
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LEE & HAYES PLLC 421 W RIVERSIDE AVENUE SUITE 500 SPOKANE, WA 99201			EXAMINER SAINT CYR, JEAN D	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/699,940	<b>Applicant(s)</b> SCOTT ET AL.	
	<b>Examiner</b> Jean D. Saintcyr	<b>Art Unit</b> 2623	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                 | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

**DETAILED ACTION**

1. Claims 1-39, filed 11/03/2003, are presented for examination.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-39 are rejected under 35 U.S.C. 102(e) as being anticipated by Dow et al, US Patent No. 20040221311.

Re claim 1, Dow et al disclose selecting (The navigation function defines the selection, 0011) combinable navigation contexts for creating a navigable (Rules for combining the navigation functions is provided in the navigation functions , 0135) sequence(a sequence of events , 0111)of television programs(broadcast television programs, 0039);  
logically combining the navigation contexts(The program navigator 150 may include functional logic mapped to the receipt of one or more control signals,0045; the navigation function module 814 includes the logic for providing one or more navigation functions based upon the event data, 0108; that means combining various navigation functions)

querying(query the server , 0052)a database(see fig.2, element 260, server) of television programming metadata for television program(video programs may be broadcast with metadata indicating video events, content transitions, 0072) identifiers(The identifier 428 indicates the purpose of the toggle 426 and may include a functional description, a trademark designation, an icon, or some combination., 0066) associated with the combined navigation contexts(Rules for combining the navigation functions is provided in the navigation functions , 0135); and presenting a sequence of television programs(portions of content are viewed sequentially in a normal presentation, 0057) associated with the identifiers for navigation(the events may be assigned identifiers to be used by a plurality of navigation functions, 0115; that means there are identifiers associated with events or television programs).

Re claim 2, Dow et al disclose wherein the querying (query the server, 0052) is performed by one or more predefined queries (The event processor module 532 may evaluate the received data to determine whether it meets threshold criteria for an event. The threshold criteria may include predefined values for both the event data and the event time, 0075; that means there is predefined condition associated with every search) and each predefined query is associated with a combinable navigation context(Rules for combining the navigation functions is provided in the navigation functions , 0135).

Re claim 3, Dow et al disclose wherein the predefined queries comprise predefined query strings(The group detector module 820 analyzes a sequence of events and uses event pattern recognition to identify content separated by events,0111; that means there are strings).

Re claim 4, Dow et al disclose wherein links (The network interface 114 is conventional and preferably allows connection to an Ethernet based network. This

connection may be used to connect to a home network and in turn a broadband connection to a WAN such as the Internet or any of various alternative broadband connections, 0034) for launching the one or more predefined queries are associated with television program content (more and more video content is likely to be distributed over wide area networks, such as the Internet, 0055).

Re claim 5, Dow et al disclose wherein the television program content is included in a conventional broadcast (conventional broadcast, 0070) television show (TV Shows, 0065).

Re claim 6, Dow et al disclose wherein the television program content is included in one of an on-demand television show or an on-demand television movie (The guide data 558 includes data describing broadcast or on-demand video programming available to the DVR, 0086).

Re claim 7, Dow et al disclose wherein the television program content is included in television musical programming (an audio channel is selected, 0123; see fig. 15, element 1510, select audio channel; that means there is musical programming).

Re claim 8, wherein a link is selectable while the television program content is playing (DVRs may use the data from the index file to enable time-based manipulation of the video data stream during play back, 0010; the content file 160, and the index file 170 may be used to provide enhanced navigation of video content during playback, 0043; that means users can select link when they are watching a show or program).

Re claim 9, Dow et al disclose wherein links for launching the one or more predefined queries are associated with television program metadata (video programs may be broadcast with metadata indicating video events, content transitions, 0072).

Re claim 10, Dow et al disclose wherein a link is selectable while the television program metadata is displayed(a content guide 400a is displayed to allow the user to select a recorded program from a number of recorded programs, 0063; see fig.4 where links are selectable while the metadata is displayed).

Re claim 11, Dow et al disclose wherein navigation controls perform the navigating(see fig.5, element 540, content navigation module; each navigation function may have associated control interfaces for defining actuation control signals and a user interface, 0011; see fig.19, element 1820, receive signal for navigation).

Re claim 12, wherein the navigation controls select one or more of the combinable navigation contexts (The navigation function defines the selection, modification, or arrangement of the indexed segments in the presentation, 0011; the user may select one or more of the programs, 0039).

Re claim 13, Dow et al disclose further comprising using at least one of the combinable navigation contexts as a logical filter(Logical ports 224a-d are assigned for certain Internet communications made between the devices 216-222 and other devices outside the home network 210. These logical ports act as a barrier to certain file transfers, 0050; that means there is logical filter).

Re claim 14, Dow et al disclose further comprising logically combining with Boolean operators( see fig.6, element 646, program logic; the program logic module 646 may determine whether both conditions need to be met and the tolerances within which to classify the frame as an event. Where multiple types of events are possible, the program logic module 646 may include criteria for classifying events, 100).

Re claim 15, Dow et al disclose wherein the Boolean operators(see fig.6, element 646, program logic)are applied automatically based on an association between a link for

launching a predefined query corresponding to a navigation context and the television program content associated with the link(the user navigates among the available programs using conventional remote control and display signals such as a cursor that moves in response to directional commands and that either automatically selects the underlying entry or does so in response to a selection signal , e.g., a joystick input can provide various directional commands and be pressed to "select" a currently highlighted area, 0100; that means navigating automatically).

Re claim 16, Dow et al disclose wherein the Boolean operators(see fig.6, element 646, program logic) are applied automatically based on an association between a link(the user navigates among the available programs using conventional remote control and display signals such as a cursor that moves in response to directional commands and that either automatically selects the underlying entry or does so in response to a selection signal , e.g., a joystick input can provide various directional commands and be pressed to "select" a currently highlighted area, 0100; that means navigating automatically) for launching a predefined query corresponding to a navigation context and the television program metadata (metadata table 552 provides a variety of information regarding stored video programs, 0082; video programs may be broadcast with metadata indicating video events, 0072 ) associated with the link.

Re claim17, Dow et al disclose further comprising navigating the sequence, wherein the navigating comprises using a navigation control to change from playing a currently playing program (Other play modes and menu options may be offered through the menu overlay, 0066) in the sequence to playing another program in the sequence (portions of content are viewed sequentially in a normal presentation, 0057).

Re claim 18, Dow et al disclose defining (The navigation function defines the selection, modification, or arrangement of the indexed segments ,0011) a query (query the server , 0052)for television programming metadata(video programs may be

broadcast with metadata indicating video events, content transitions, 0072), wherein if the query is launched(connect to a home network and in turn a broadband connection to a WAN such as the Internet or any of various alternative broadband connections, 0034), then the query uses one or more attribute values (The content navigator 1610 may include some or all of the operations and attributes described above for the content navigator 810 of FIG. 8, 0125) from a television program context(broadcast television program, 0058) from which the query was launched to produce a list of television program(In a specific case, the channel guide may list numerous broadcast television programs, 0039) identifiers(The identifier 428 indicates the purpose of the toggle 426 and may include a functional description, a trademark designation, an icon, or some combination., 0066) associated with the one or more attribute values; arranging(The same interface may be used to selecting and arranging multiple segments, such as for a segment programming feature, 0136) the television programming metadata (video programs may be broadcast with metadata indicating video events, content transitions, 0072) into a data structure(logic structure for prompting control signals through a graphical user interface,0110) wherein attribute values(and attributes described above for the content navigator 810 of FIG. 8, 0125) are associated with program identifiers(The event tags may also include an event identifier for identifying the type of event, 0107); and providing a user interface(a user interface, 0011), wherein a navigation control(navigation options, 0010)s elects whether to launch the query and if launched(connect to a home network and in turn a broadband connection to a WAN such as the Internet or any of various alternative broadband connections, 0034), designates(a designated panel , 0131) one or more attribute values(one or more values describing an event , 0075) from the television program context(list numerous broadcast television programs, 0039).

Re claim 19, Dow et al disclose wherein the television program context is a television program currently being displayed (The HUD 404 displays additional information regarding a currently selected entry, 0065; see also fig.4).



Re claim 20, Dow et al disclose wherein the television program context is program guide information (interactive program guides) associated with a television program (the channel guide may list numerous broadcast television programs, 0039).

Re claim 21, Dow et al disclose wherein the television program context is an order form for ordering an on-demand television program (The guide data 558 includes data describing broadcast or on-demand video programming available to the DVR, 0086).

Re claim 22, Dow et al disclose further comprising if the query(query the server , 0052) is launched(connect to a home network and in turn a broadband connection to a WAN such as the Internet or any of various alternative broadband connections, 0034), then using the navigation control(navigation options, 0010) to access television programs associated with television program(list numerous broadcast television programs, 0039) identifiers on the list(the events may be assigned identifiers to be used by a plurality of navigation functions., 0115; that means there are identifiers associated with television programs).

Re claim 23, Dow et al disclose further comprising playing each television program in response to the navigation control accessing the television program(The metadata table 552 may include information to be used by the system for accessing and playing each program, 0083).

Re claim 24, Dow et al disclose further comprising displaying program information for each television in response to the navigation control accessing the television program (A channel guide displays available content from which individual pieces of content may be selected, 0039; that means users can use the navigation control to select one program from the list of programs).

Re claim 25, Dow et al disclose further comprising: pausing (pause, and other features that work in conjunction with one or more modes, 0135) a first television program at a pause point in response to the navigation control accessing a second television program on the list; and resuming (resume normal playback, 0108) the first television program(DVRs may also keep track of a time signature for returning to the location at which the last incomplete viewing of the recording was stopped, 0126; that means users are able to resume) at the pause point(a data pointer for where the last viewing left off, etc, 0083) in response to the navigation control accessing the first television program(allowing the system to directly access any time point in the content file, 0010).

Re claim 26, Dow et al disclose further comprising defining multiple queries(query the server , 0052) for television programming metadata(video programs may be broadcast with metadata indicating video events, content transitions, 0072), wherein multiple queries are capable of being logically combined(The abstraction and combination of values, including threshold values or other criteria for events, may be embodied in a logic chip, such as a field programmable gate array ,FPGA, 0072; that means there is logical combination).

Re claim 27, Dow et al disclose wherein the multiple queries are logically combined through Boolean logic operators (see fig.6, element 646, program logic; the program logic module 646 may determine whether both conditions need to be met and the tolerances within which to classify the frame as an event. Where multiple types of events are possible, the program logic module 646 may include criteria for classifying events, 100).

Re claim 28, Dow et al wherein the Boolean operators are designated by the television program context (see fig.6, element 646, program logic; the program logic module 646 may determine whether both conditions need to be met and the tolerances

within which to classify the frame as an event. Where multiple types of events are possible, the program logic module 646 may include criteria for classifying events, 100).

Re claim 29, Dow et al disclose a server for storing and accessing digital television programming content(see fig.2, element 260, server, server 260 may include any shared remote resource for data storage or processing that is accessible to multiple DVRs connected to the wide area ); a navigation control for changing a currently playing television program to a television program provided by the server and for selecting links to launch predefined queries(see fig.1, element 150, program navigator; program navigator 150 provides navigation options for viewing stored video content. The program navigator 150 may include functional logic mapped to the receipt of one or more control signals. For example, the program navigator 150 may determine, at least in part, how the DVR responds to user input through a remote control, panel interface, or other input device), wherein each predefined query queries a database(query the server , 0052) based on a television program attribute(The content navigator 1610 may include some or all of the operations and attributes described above for the content navigator 810 of FIG. 8, 0125) and returns a navigation axis comprising a list of program(In a specific case, the channel guide may list numerous broadcast television programs, 0039) identifiers(The identifier 428 indicates the purpose of the toggle 426 and may include a functional description, a trademark designation, an icon, or some combination., 0066) of programs corresponding to a value for the television program attribute;

a means for storing television program metadata in a database(see fig.5, element 550, data storage and element 552, metadata table; the data storage 550 includes a metadata table 552, at least one content file 554, at least one index file 556, and a guide data file 558, 0082),

a means for arranging (same interface may be used to selecting and arranging multiple segments, such as for a segment programming feature, 0136) the program metadata (the metadata table 552 may include a plurality of interrelated tables based on

conventional relational database technology. The metadata table 552 may be organized according to the programs presently stored or scheduled to be stored in the DVR. For example, the metadata table 552 may include row entries corresponding to each video program recorded or waiting to be recorded. Each row entry may include a variety of data columns describing the particular program. The metadata table 552 may include information to be used for selecting and organizing stored content., 0083) in a relational schema(the group detector module 820 may process a variety of event types and classify content portions according to a more complex identification scheme, 0111), a means for defining and storing the pre-defined queries(see fig.5, element 550, storage data and element 556, index file; that means pre-defined information); and a means for embedding(embedded within the video presentation, 0059)links to the pre-defined queries in logically associated metadata (video programs may be broadcast with metadata indicating video events, content transitions, 0072)for a currently playing television program(broadcast television programs, 0039).

Re claim 30, further comprising a means logically combining multiple predefined queries (The abstraction and combination of values, including threshold values or other criteria for events, may be embodied in a logic chip, such as a field programmable gate array ,FPGA, 0072; that means with the logic chip, users are capable to combine queries ).

Re claim 31, Dow et al disclose further comprising a means for selecting more than one link (The program navigator 150 provides navigation options for viewing stored video content. The program navigator 150 may include functional logic mapped to the receipt of one or more control signals, 0045) in order to logically combine multiple predefined queries.

Re claim 32, Dow et al disclose wherein the relational schema adheres at least in part to a global listings format (format compatible, typically the NTSC format that can be

readily received by a conventional television set. The graphics module 122 receives various guide and control information and provides signals for corresponding displays, outputting them in a compatible format, 0038).

Re claim 33, Dow et al disclose a database for television program metadata(see fig.5, element 550, data storage and element 552, metadata table); a query engine(see fig.5, element 556, index file) to find identifiers in the database corresponding to predefined queries, wherein a predefined query returns a navigational axis from the database(histogram 700, the x-axis 710 includes 64 luminance bands into which the frames are grouped. 0095), wherein a navigational axis is a list of identifiers of television programs;

a user interface(each navigation function may have associated control interfaces for defining actuation control signals and a user interface, 0011) to associate launch of one or more of the predefined queries with selection of one or more attributes of a currently playing television program or currently displayed metadata of the television program; an axis cache(temporary buffer , 0076) to store the list of identifiers(a content area with several listed programs 408a-f, and a unit identification area 410. A menu overlay 420 provides the play options 422 and 424 for a selected program, 408d, including a commercial skip toggle 426 and identifier 428, 0063) returned by one or more predefined queries; and

a navigation controller associated with the user interface to select the attributes launching the predefined queries and to play television programs corresponding to the identifiers on the list( user may control the operation of the DVR 100 through control signals provided on the exterior of the DVR 100 housing through the panel interface 132, or through control signals originating from a remote control, 0035).

Re claim 34, Dow et al disclose further comprising a combiner (include a mixture of titles/credits, advertising, and program content, 0130) to combine selected attributes for launching multiple predefined queries.

Re claim 35, Dow et al disclose wherein the navigation controller is on a remote controller (control signals originating from a remote control, which are received through the remote signals interface 134, 0035).

Re claim 36, Dow et al disclose instructions (software instructions for coordinating video processing, pattern recognition, and data storage tasks, 0044) for arranging (a series of spatially arranged icons, 0130) a database of television programming (television programs, 0039) metadata into indices facilitating predefined queries (video programs may be broadcast with metadata indicating video events, 0072); wherein one or more links contextually (access a number of navigation options, 0137; that means a link of context) associated with one or more attributes (content navigator 1610 may include some or all of the operations and attributes described above for the content, 0125) of a television program (television programs, 0039) call the predefined queries (see fig.5, element 556, index file), wherein the predefined queries return a list of identifiers from the database corresponding with one or more of the attributes (The event indexer module 536 receives one or more identifiers, 0077) wherein the identifiers correspond to television programs (television programs, 0039), wherein the television programs on the list (lists the available programs, 0065) are played in turn as accessed by a television channel (the channel selector module may sample data from the left and right, 0093) navigation means (navigation function defines the selection, modification, or arrangement of the indexed segments in the presentation, 0011).

Re claim 37, Dow et al disclose wherein the one or more attributes include one of: type of program, program title (program titles, 0086), alphabetical order of title, year of release, channel, time (times, 0086), first air date, episode order, episode name (episode name, 0086), genre, actors, writer, director, producer, rating, sound characteristics (characteristics of the audio and video, 0087), video characteristics, language, subtitles, closeness of match to search criteria, and popularity.

Re claim 38, Dow et al disclose One or more computer readable media(computer readable storage media for providing navigation of indexed video content, 0011) containing instructions that are executable by a computer to perform actions comprising: defining television navigation(the navigation function defines the selection, 0011)axes(y-axis , 0095) according to attributes of television programs(television programs, 0039); linking a predefined database query(query the server 260, 0052) for one of the axes to a television program having the attribute that defines the axis; providing a database of television program(see fig.2, element 260, server) identifiers associated with the attributes; providing(providing an appropriate display for the segment index and allowing the user to select segments from the segment index, 0130) a means for selecting and launching (connect to a home network and in turn a broadband connection to a WAN such as the Internet , 0034) the predefined database query, wherein the query returns a list of program(lists the available programs, 0065) identifiers(The event indexer module 536 receives one or more identifiers, 0077) of television programs having the attribute that defines the axis.

Re claim 39, Dow et al disclose further comprising instructions(the processor 104 executes instructions , 0034)to cycle through playing(playing each program, 0083) the television programs on the list when a user uses a navigation controller(the user navigates among the available programs using conventional remote control , 0065)for changing television channels(see fig.6, element 622, channel selector)

### ***Conclusion***


4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Carpenter et al (US. 20050235319) disclose features for use with advanced set-top applications on interactive television systems.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean Duclos Saintcyr whose phone number is 571-270-3224. The examiner can normally reach on M-F 7:30-5:00 PM EST. If attempts to reach the examiner by telephone are not successful, his supervisor, Brian Pendleton, can be reached on 571-272-7527. The fax number for the organization where the application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Retrieval (PAIR) system. Status information for published applications may be obtained from either private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, dial 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jean Duclos Saintcyr  
02/15/2008

  
Brian Pendleton  
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